

ABSTRACT

The present invention provides a method to enhance apoptosis in a cell by the administration of p53 in combination with a calpain inhibitor. The present invention provides a method of increasing the infectivity of a cell to a viral vector by treatment of the cell with a calpain inhibitor. the present invention further provides a method of enhancing transcription of a therapeutic transgene from the CMV promoter. The present invention also provides a method of suppress the *in vivo* CTL response to viral vectors by the use of calpain inhibitors. The present invention further provides a pharmaceutical formulations of p53 and a calpain inhibitor in a pharmaceutically acceptable carrier. The present invention provides a method of ablating neoplastic cells in a mammalian organism *in vivo* by the co-administration of a calpain inhibitor and p53. The present invention also provides a method of ablating neoplastic cells in a population of normal cells contaminated by said neoplastic cells *ex vivo* by the administration of a recombinant adenovirus in combination with a calpain inhibitor to said population.